

## Correspondence

TO THE EDITOR, *British Journal of Venereal Diseases*

### Higher incidence of asymptomatic gonorrhoea in men with initial infection than with reinfection

Sir,  
Despite worldwide efforts to fight gonorrhoea this sexually transmitted disease (STD) still constitutes a serious problem. Strains of gonococci with low sensitivity to penicillins or enzymatic resistance may be responsible for treatment failures. Asymptomatic infections also contribute to the continued high frequency of gonorrhoea. This problem is well recognised in gonorrhoea in women.

A retrospective study was carried out on 2506 patients who attended the STD clinic at the Oslo Board of Health during the months of January to June 1980. Gonorrhoea was diagnosed in 236 (12.4%) of 1908 men and in 123 (20.6%) of 598 women. Information on symptoms, signs, and histories of STD, particularly gonorrhoea, was recorded from the patients' case notes. Diagnosis of gonorrhoea was based on positive microscopical findings, positive culture, or both. Statistical analysis was carried out by the Student's *t* test and  $\chi^2$  test.

In 31 cases information on symptoms, signs, or both was missing and these cases were excluded from the analysis. Of 119 men with no previous history of gonorrhoea, 16 (13.4%) were asymptomatic, while only 4.7% of men with reinfection were asymptomatic. The difference was significant ( $p < 0.05$ ). A similar trend was observed for signs, but the difference was not significant. In women symptoms of gonorrhoea were absent in 47 (38.3%) cases but no differences were seen between reinfected women and women who had not previously been infected with gonorrhoea.

Asymptomatic genital infections are important for at least two reasons; continued sexual activity contributes to a high incidence of the disease, and complications such as epididymitis or salpingitis may develop. This in turn may cause infertility and (in women) ectopic pregnancy. A Swedish study has recently shown that there has been a fourfold increase over the past decade in pelvic inflammatory disease (PID) in women under 20.<sup>1</sup> These infections were predominantly sexually transmitted,

the responsible micro-organism having been *Chlamydia trachomatis* more often than *Neisseria gonorrhoeae*.

As many as 10% of unselected women attending a gynaecological ambulatory clinic may have asymptomatic gonococcal infection.<sup>2</sup> In 203 consecutive men with gonorrhoea attending an English STD clinic 36 (18%) were asymptomatic.<sup>3</sup> Our results indicate that asymptomatic gonorrhoea is more liable to occur in people with initial gonococcal infection. We therefore recommend that specimens are cultured for gonococci from young men seeking advice for other sexually transmissible diseases such as genital herpes, molluscum contagiosum, condyloma acuminatum, scabies, and pediculosis.

Attempts to explain our observations are speculative. It may be that sensitisation develops during the initial infection, and cellular or humoral immune mechanisms may contribute to the symptoms of subsequent infections.

Yours faithfully,

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### References

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TO THE EDITOR, *British Journal of Venereal Diseases*

### Comparison of amoxycillin and procaine penicillin in the treatment of uncomplicated gonorrhoea

Sir,  
Single dose oral treatment for uncomplicated gonorrhoea is increasingly preferred

by patients and doctors. Oral amoxycillin has been available since 1970,<sup>1</sup> yet there are relatively few published studies of its use in gonorrhoea. Conflicting claims of its efficacy using different treatment schedules in various geographical locations have been made.<sup>2</sup>

This study compares the recommended dose of amoxycillin<sup>3</sup> with our standard treatment for uncomplicated gonorrhoea. A total of 198 patients with gonorrhoea in two adjacent (eight miles apart) clinics were included. The age range, sex distribution, and ethnic origins were similar. Patients were excluded if there was a history suggestive of: allergy to penicillin; antibiotic treatment in the previous two weeks; having acquired the infection in areas where  $\beta$ -lactamase producing gonococci are common; or reinfection before completing tests of cure.

A presumptive diagnosis of gonorrhoea was made on the results of Gram stained smear microscopy of urethral, cervical, and rectal smears. Swabs from these sites, and from the pharynx where indicated, were cultured as described elsewhere.<sup>4</sup> Identification tests included typical colonial morphology, oxidase reaction, Gram stained appearance, and sugar fermentation patterns. Relatively resistant strains (MIC  $\geq 0.125$  mg/l) were tested for  $\beta$ -lactamase production with the chromogenic cephalosporin test. Patients were treated with either 3 g amoxycillin suspension plus 1 g probenecid or 2.4 MU procaine penicillin intramuscularly preceded by 1 g oral probenecid. All patients were advised to refrain from sexual intercourse and report for tests of cure three and 10 days later. All were screened for syphilis and other sexually transmitted diseases. Gram stained smears, cultures, or both were repeated on the third day for men but on both the third and 10th days in women. Symptomatic men whose urethral smears showed more than 10 pus cells per high power field but no diplococci were deemed to have post-gonococcal urethritis when seen on the 10th day.

The results shown in the table relate to 172 patients (26 having been excluded). Of the five treatment failures, four (one in the group treated with amoxycillin and three in those treated with procaine penicillin) were associated with non- $\beta$ -lactamase producing penicillin resistant organisms. The fifth